

PAPA Misiu

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **72**
- SRM **4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.4 liter(s)**
- Total mash volume **17.8 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **13.4 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **16.4 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4.2 kg (94.4%)	80 %	4
Grain	Strzegom Karmel 30	0.25 kg (5.6%)	75 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %
Boil	Equinox	10 g	60 min	13.1 %
Aroma (end of boil)	Lublin (Lubelski)	35 g	10 min	4 %
Aroma (end of boil)	Equinox	15 g	10 min	13.1 %
Aroma (end of boil)	Mosaic	20 g	10 min	10 %
Dry Hop	Mosaic	30 g	3 day(s)	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	150 ml	Safale